ComtronICS Inc. 2456 Fortune Drive Lexington KY 40509



How do you communicate?



TRANSOL JCER HEADSETS JRV/EILL ANCE rropi HUNES HME TACTICAL WIRELESS FIRE BOSTON AMPLIFIER BDA SPEAKER MICROPHONES HIGH NOISE HEADSETS SCBA ADSETS SORIES ADAPTERS GPS DUPLEX HANDS JETOOTH RADIO ADAPTERS MASK HEADSET BLI

Tactical job communication just got more portable and affordable with HME's DX-series spread spectrum digital wireless headset intercoms. Now get crystal-clear digital voice "conversation"--all built into super compact design for easy setup and operation.

HME

Cobalt AV provides the most complete two-way accessories and peripherals found from any single source, just review our table of contents below. Since 1980, Comtronics Inc., who uses the brand name Cobalt AV, has provided headsets and related equipment. We also custom build headsets and cable assembly wireless telephony and intercom uses.

INDEX

HME Wireless Headset Intercoms		
Throat Microphones		
Speaker Microphones	6	
AMPS Speaker Microphones		
Tactical Switch Headsets		
Lightweight Headsets	14	
Temple Transducer Headsets		
Surveillance Kits		
Quick Disconnect System		
Ear kits	20	
Motorola & Kenwood Audio Adapters	20	
Replacement Audio Parts	21	
Boston Amplifier 60 dB BDA Indoor	22	
Boston Amplifier 50 dB BDA Vehicle	23	
Motorcycle Helmet Headsets	24	
SCBA Mask Headset	24	
theCobra Microphones	25	
theBoom Headset	25	
Cobalt Blue Muff Headsets		
Peltor Powercom Radio Headsets	29	
Peltor Bluetooth Muff Headsets	29	
Cobalt Vehicle Headset Intercoms	30	
VCOM VoIP Interop/Intercom	34	
Cobalt BLUE Bluetooth Adapters		
Radio Connector Chart	38	
HME Wireless Headset Intercoms	40	



DX100

The compact **DX100** wireless headset system supports up to 4 simultaneous headset talkers and up to 15 listening users, like all our base station systems (except DX121). With simplicity and economy in mind, the DX base has no connections for expansion or interface. Use belt pacs with headset choice, all-in-one headset or wireless speaker station.



DX121

The **DX121** is designed as a wireless extension of 4-wire matrix intercoms for one talker and four listening users with relay closure advance functions. Use belt pacs with headset choice, all-in-one headset or wireless speaker station.

DX500

This rack mount base systems offers the most expansion and interface options. The **DX200** is capable of interface with four wire matrix intercoms, 2 wire intercoms, telephone interfaces or connection of multiple base stations. Use belt pacs with headset choice, all-in-one headset or wireless speaker station.





DX300

The **DX300** package was developed for football coaching configurable for 3 field coaches and 2 press box spotters with offense and defense channels. The **DX300/ES** tactical wireless intercom adds closure relay function allowing radio interface at base and allowing wireless users to talk local wireless and on two-way network.

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Included with our rugged use throat mic kit is the redesigned plastic neck mic with adjustable dual water resistant rubber mic elements, clear acoustic ear tube, round detachable tactical PTT switch and your specified radio cord.

Also included is a rubber mushroom tip ear plug and medium-sized semicustom ear mold that attached to the acoustic ear tube. An adjustable cloth retainer strap is now integrated into the neck mic assembly and is used for a secure fit when wearing protective clothing, but is not necessary for many users. Options include disposable 29 dB NRR **PHP** hear plugs, **PTT80** extra rubber covered switch and belt and finger switch combo. Two alternatives are available in place of the standard plastic neck mic. These single element cloth strap retained neck mics utilize the same transmit switches and radio cords. The TMCA has an integrated acoustic ear tube like our standard TM kit. The TMCJ has a 2.5 mm speaker jack (speaker attachment sold separately). Available ear kits are KLSH acoustic tube, KLEL d-ring ear shell and KLSH ear bud with retainer ear hook.

Our throat mics may also be custom built for wireless telephony and intercom applications or for vox-capable radio applications.

Speaker Microphones

Remote Speaker Mic for 2-Way Radios

A YEAR WARRANTY WIL STD 16

SPMW

Our best selling speaker microphone is designed for public safety and other demanding use. This water and shock resistant rubber framed mic head comes with a heavy duty coiled radio connector cable. The cable connect to the mic head comes with a rubber-booted modular networktype connector. SPMW: A best of class product.



This smaller, lighter remote speaker microphone is ideal for retail and gaming industries. Even with the lighter price, there are no short cuts in the audio quality or high impact construction.

HD

1 YEAR

IP 55

Like its **SPMW** cousin, the **SPML** has a 3.5 mm remote speaker audio jack, swivel clip and heavy duty radio connector coil cord, which will permanently attached to mic head.



Our speaker microphones offer the quality product you need at a value price. First class features include a rugged 360° swivel clip, excellent audio quality, rugged radio connector coiled cords and positive action PTT switches.

We offer both public safety-quality and retail compact sized models for most portable radios. Tactical antenna mics are also available.

Speaker Microphones

HD

2 YEAR

IP 57

MIL STD 810

PMP

Public safety use waterresistant tactical speaker microphone has both the standard side position PTT and a large round speaker grill face PTT. The tactical PTT allows for easy mic keying when worn inside protective clothing.

Like our other mics, the SPMP has 3.5 mm speaker jack and swivel clip. The heavy duty radio connector coil cord is permanently attached to mic head.

Same mic as SPMP. but adding "panic" emergency buttom on top of mic head. This option is only available for radios that support this feature.

HD

MIL STD 810

IP 57

SPMA-SE

Same as SPMA-S adding "panic" emergency button (not shown) for radios supporting this "man in trouble" feature.

PMP-E SPMA-S

IP 56

MIL STD 810

Public safety use tactical antenna speaker microphone has both side and speaker grill face PTTs. Antenna connection on top of mic head for placement of portable radio antenna (not included). Heavy duty coiled radio connector cord with antenna coax integrated in cord and using antenna coax pins on supported portable radio models. 3.5 mm speaker jack and swivel clip included.

SPMA-P

MIL IP STD 56

Antenna speaker microphone with same features as SPMA-S but built for radios that do not support antenna pins at audio connector. The SPMA-P has a "T"-ed coax pigtail cable above radio audio connector that connects to radio's antenna connection.

ON MICROPHONI



NPSC

HD 1 YEAR WARRANTY

IP 57

MIL STD 810

The next generation GPS location reporting device speaker microphone works like any speaker mic but also contains a GPS receiver and FSK modem. The mic sends data reports over the connected radio transmitter allowing dispatcher to track the mics location. Since it uses existing radio voice radio system--conventional or trunked. No additional channels or licensing. No monthly fee to deliver real time GPS tracking.



AMPS

Advance Microphone for Public Safety

This top of the line "pro" BUTTON quality, water resistant feature rich-speaker microphone series has a built in jack for both listen only kits and headsets.

- Internally upgradable for future options suchas scrambling.
- Side PTT next to LED illuminated function button.

360° CLOTHING CLIF

HD 1 YEAR

MIL STD 57

VIIII

TM-AMPS

PANIC BUTTON

AMPSR

- Speaker grill is second PTT for tactical use.
- Rugged quality mic head and radio cable assembly
- Sealed housing for use in wet environments
 Extra loud speaker
- 3.5 mm threaded jack for optional headsets and listen only kits, including:

TM-AMPS throat mic TMCJ-AMPS KLSA-AMPS lightweight headset KLSH-AMPS acoustic ear kit KLEL-AMPS d-ring ear kit KLSC-AMPS ear bud ear kit

Multi-function panic button with used with supported radios. With the **AMPSR** version, a **PTT-AMPS** wireless ring switch is added with a wireless switch receiver in the mic. Ring switch to mic range is 3 meters (10 feet) at 2.4 GHz ISM.

TKLSA-AMPS

AMPSR receiver powered by radio on most models. Ring switch battery life over 1000 hrs.
 AMPSG is version of mic with GPS receiver.

OPTIONAL ACCESSORIES

Tactical Switches

With the popularity of our throat microphone kit, we now provide the same round tactical switch and radio cord series with many of our other audio accessories. These kits offer interchangeability of audio accessory and radio cords.

The other switch options available for the throat mic are also compatible with the tactical switch accessories.

Belt PTT

PTT80





TKSLA

HD

YEAF

MIL STD 810

Rugged lightweight behind head support hard hat and helmet compatible headset with noise canceling flexible boom microphone and single side ear speaker. Adjustable, padded support allows ideal kit and long use comfort. Over ear suspended speaker means no ear hygiene issues.

10

KLSH-AMPS



TCHS

This rugged, medium duty single ear overthe-head support headset has a noise canceling flexible boom microphone.

TCH21

Behind head support hard hat and helmet compatible 24 dB NRR hearing protection muff "Cobalt blue" headset with noise canceling flexible boom microphone.

TCH16

Over head support single muff "Cobalt blue" headset with noise canceling flexible boom microphone

Over head support 24 dB NRR hearing protection muff "Cobalt blue" headset with noise canceling flexible boom microphone

TCHIB

Hard hat slot mount 24 dB NRR hearing protection muff "Cobalt blue" headset with noise canceling flexible boom microphone (Hard hat not included)

TCH41

Behind head support hard hat and helmet compatible vented muff "Cobalt blue" headset with noise canceling flexible boom microphone. One ear cup has no speaker and slots allowing in ambient noise.

Lightweight Headsets

High Noise, Open Ear, Tactical Headsets

DUSN

Economy mini-flex boom mic headset with D-ring ear shell speaker, easily cleaned. Mic swivels to adjust for left or right ear, inline PTT with spring clip and jack for remote finger switch (included).

High Noise, Open Ear, Tactical Headset

The temple transducer headset can be used in place of muff headsets for high noise applications. Also, ideal for tactical law enforcement where hearing surrounding sound is critical.

While the wearer's ears are uncovered and completely free to hear the surrounding environment, not a word of radio traffic is missed. The dual receivers rest on both temples (area in front of ears) and are capable of converting the audio to vibration.

AUDIO • VIDEO

With disposable hearing protection plugs, the temple transducer can replace hearing protection plugs, as well as replace muff headsets in high noise environments. The **TT** is compatible with hard hats, helmets and other head coverings and with eye protection glasses. Designed to hold up to rugged use in weather extremes and features inline PTT switch and specified radio connector cord.

KLSA headset

Dual ear extra large ear pad headset with flex boom mic. Independent volume and speaker switch. Can be modified for hard hat wear (**#T20HH**). Inline mute or

PTT included.

HD 2 YEAR WARRANTY

MIL STD 810

Rugged lightweight behind head support hard

hat and helmet compatible headset with noise

canceling flexible boom microphone and single

side ear speaker. Adjustable, padded support

allows ideal kit and long use comfort. Over ear

Inline PTT has swivel clip and jack for remote

finger switch (not included).

suspended speaker means no ear hygiene issues.

T1C

Single ear lightweight headset with flex boom mic and overhead support. Inline mute or PTT included.

KLSM

Economy mini-flex boom mic headset with ear bud speaker. Soft rubber ear hook support adjust for left or right ear, inline PTT with spring clip and jack for remote finger switch (optional).

This rugged, medium duty single ear over-the-head support headset has a noise canceling flexible boom microphone.

TT

Surveillance Kits

For 2-way Radios

Cobalt features the widest range of surveillance kits found anywhere. Sometimes referred to as lapel mics, 2-wire or 3-wire kits, we feature models with ear buds, acoustic tubes and plastic D-rings and optional quick disconnect radio cords.

> Economy kit with inline lapel mic/push-to-talk/clip module and comfortable & cleanable hygienic plastic D-ring ear shell speaker. D-ring loops over the flap of the ear and swivels for left or right ear use.

DLBC

TIMIN

Economy kit with inline lapel mic/ push-to-talk/clip module and comfortable ear bud style in-the-ear speaker. Soft ear hook holds the ear bud in place. Microcoil ear cord allows flexing from the mic/ptt housing but does not get in the way.

7////INC

PYM

Kit with inline lapel mic/ push-to-transmit/clip module and clear acoustic tube reinforced transducer speaker.

Surveillance Kits

For 2-way Radios

KLSN2

Traditional-style two-wire kit with clear acoustic tube reinforced transducer speaker and new design mic/push-to-transmit/clip assembly.

18

Speaker and mic wires split at radio connector. On this and other acoustic ear tube models, SCE semi-custom ear molds (small, medium, and large for left or right ear), additional rubber ear plugs (KLP) and 29 dB NRR disposable hearing protection communication ear plugs (PHP, only in 100 per box) are available (see listen only ear piece page).



Quick Disconnect

Our Quick Disconnect system allows easy connect and disconnect of audio accessory, yet is secure enough to be used in most situations. Interchangeable with all QD Adapters, making communications convenient for multiple radio model users. QDs prevent wear and tear, prolonging radio life.



Quick Disconnect Feature



These and other accessories available.

AMPS

Mic

KLSA

Headset

Surveillance



AUDIO • VIDEO



Direct-to-radio audio connector clear acoustic tube reinforced transducer speaker with 36 inch straight cord from radio to speaker. Also, available for use with our QD radio adapters (adapter sold separately) KLRN-MTC and -VTC connectors have coiled cords. (see radio connector chart on p. 38)

> **Portable Radio** Connector



Clear acoustic tube reinforced transducer kit. **52.5** 15 inch coil cord with 2.5 mm right angle connector **53.5** 15 inch coil cord

with 3.5 mm right angle connector

12.5 30 inch straight cord with 2.5 mm right angle connector **L3.5** 30 inch straight cord with 3.5 mm right angle connector See KLRN for OD. MTC and VTC versions



MTC to MXT adapter (see radio chart)



MTC to MHT adapter (see radio chart).



radio chart).

M4455 MSC to MEX adapter (see radio chart).

Right Angle

Connector

D-ring over ear loop speaker kit. Swivels for left or right ear. Hygienically cleanable. **52.5** 15 inch coil cord with 2.5 mm right angle connector **S3.5** 15 inch coil cord

with 3.5 mm right angle connector **L2.5** 25 inch coil cord with 2.5 mm right angle connector **L3.5** 25 inch coil cord with 3.5 mm right angle connector

> SCE Semi-custom comfort

> > elbow fitting.



RS Right small Disposable foam **RL** Right large hearing protectors, LS Left small 29 dB NRR, for small elbow fitting. LM Left medium Box of 100. LL Left large



VITE 30 inch straight cord with 3.5 mm threaded straight connector (MTC. see radio chart) **0** 30 inch straight cord with OD connector (mates with OD radio adapter, sold separately)



fit ear mold for small Ear Bud rubber mushroom shaped **RM** Right medium ear insert for large elbow fitting.

Economy ear bud speaker kit. Soft earhook holds the ear bud in place. **\$2.5** 15 inch coil cord with 2.5 mm right angle connector **53.5** 15 inch coil cord with 3.5 mm right angle connector L2.5 25 inch coil cord with 2.5 mm right angle connector **13.5** 25 inch coil cord with 3.5 mm right angle connector



KLAC Replacement clear acoustic tube **KLAB** Replacement black acoustic tube **KLAZ** Replacement clear acoustic tube with metal threading **KLAP** Replacement clear acoustic tube with plastic twist connect



radio chart).

Tired of poor in-building reception?

Tired of poor in-vehicle reception and dropped calls?

STAY CONNECTED STAY CONNECTED STAY CONNECTED

If you can't receive a signal, you can't communicate!

Coverage made simple for home, small business and warehouse applications

60dB Bi-Directional Amplifier In-Building Kit



- Wireless operation No physical connection to cell phone
 Allows multiple cell phones to be used simultaneously
 Eliminate in-building dead zones
- Clearer calls
- Runs cool for longer life
- Monitors cell tower signal for best performance (AGC)
- Signal Sensing Technology© (SST)



In-building Bi-directional amplifier kit: 60 db BDA with Signal Sensing Technology, AC power adapter, in-building antenna with 30' low loss cable, outdoor high gain directional Yagi Antenna with mounting pole and 50' low loss cable.

Specify band: 800 MHz for GSM, CDMA and TDMA, 800 MHz for iDen or 1900 MHz, 1900 MHz for GSM and CDMA.

Call for availability: dual band 800 MHz and 1900 MHz for GSM, CDMA and TDMA.

In-Vehicle 50dB Bi-Directional Amplifier

Wireless operation

Allows multiple cell phones to be used simultaneously

Significantly increases your cell phone range

- Clearer calls less noise level
- Runs cool for longer life

Monitors cell tower signal for bes performance (AGC) Signal Sensing Technology© (SST

Helps eliminate dead zones

Bi-directional amps now available for dual band: 800 and 1900 MHz.

In-vehicle kits available as wireless or direct connect amplifiers.

Wireless kit: BDA with Signal Sensing Technology, in-vehicle antenna and cigarette power cord.

Direct connect kit: amplifier with automatic gain control, hardwire power cable, 4 foot coaxial cable. Vehicle antenna sold separately. **Specify band:** 800 MHz for GSM, CDMA and TDMA, 800 MHz for iDEN, 1900 MHz for GSM and CDMA or dual band 800 MHz and 1900 MHz for GSM, CDMA and TDMA.







Your solution to wireless technology

Signal Sensing Technology©

Signal Sensing Technology© (SST) Protection.

Avoids overheating the BDA due to the antennas not having enough separation. Provides a visual alarm when the antenna separation is not enough. Corrects automatically once the antenna separation is determined to be enough.

MKB/MKF

Powerful in-helmet speakers allow the user to hear radio transmissions over road noise. High-guality electret condenser element produces excellent transmit audio.Handlebar mountable Push-To-Talk switch for convenient communications. Installs into helmet using only two-sided fastening tape. No drilling of holes is required. Modular features allow the mic system to be easily disconnected from the motorcycle. Available for both open faced (MKB) and full faced (MKF) helmets.

Limited radio connector cord availability: -ISC, -ITC, -KSC, -MSC, -MOP, -MTC, -VSC, -VTC. For -KMC radios, use K0111 with -KSC. For MEX, use M4455 with -MSC. For -MHT use M9716 with -MSC or M9716 with -MTC. For MXT, use M9717 with -MTC. See connector page for radio chart.



Mask headset is a complete vibration mic and speaker solution using vibration for both talk and listen functions. It is quickly and easily attached to SCBA mask straps resting on temple. The result is amazingly clear when used with most public safety and military gas masks, even chem-bio suits. IP67 rated when used with rated switch/radio cable assembly.







theCOBRA

Noise canceling microphone

Among the best noise canceling microphones, theCobra cartridge can be added to any Cobalt "blue" headset. For the ultimate, add theCobra to our ANR active noise cancellation optioned headsets.

Dramatic Noise Reduction

TheCobra has an average 10 dB improvement over standard headset mics with a maximum of 30 db improvement in average speech bandwidth. **The Best Speech Intelligibility**

theCobra microphone enables crystal clear speech in 100+ dB noise. Improves intelligibility scores to 82% in noise levels of 105 dB compared to 72% intelligibility for standard microphone.

Ideal for high noise environments, theCobra's noise rejection performance surpasses all other microphone technologies, and is particularly stark in high noise levels. Noise Rejection takes a new shape Patented noise cancellation technology rejects



based approach; theCobra accentuates the speaker's voice by concentrating it on the front port of a two-port microphone, while deflecting background noise from the back port.

Passive Noise Canceling technology

- No processor required, so low power requirements.
- Active noise canceling technology relies on creating an anti-noise signal to cancel out the noise in a signal. Since there is inherent overlap in frequencies between speech and noise, this results in speech signals often being identified as noise and vice versa. An observable consequence of this is distorted or garbled speech, and unsatisfactory noise cancellation. It also requires a power supply (typically, additional battery).
- Other electronic noise canceling techniques use algorithms to identify noise from a digital signal and to filter it out using digital filters. These techniques are also frequency dependant, which results in the same problems mentioned above.

Available in preamped or non-preamped electret or dynamic versions.

Sensitivity -35 dBVrms Impedance 2,200 Ohms Frequency 50-20,000 Hz S/N ratio >70 dB Mono sound

Using our acoustically based approach, theCobra accentuates the user's voice by concentrating it in the front of the microphone while deflecting the voice from the back port. The background noise is directed towards both ports to reduce noise vibration.



theBoom-O

theCobra and theBoom, trade names Umevoice

HEADSETS

AUDIO • VIDEO

Cobalt muff headsets offer premium quality and features that rate them world class, but with value always in mind. Headset cords for portable radio or Cobalt fire truck intercom attach and are easily removable and changeable using a multi-pin miniature round locking connector. Versions of headsets and cords can be used on other intercoms (wired & wireless), for telephony or with a **Cobalt** tactical kit with large round inline PTT switch (see our Tactical Switch page). Also, refer to connector and intercom pages in this catalog.

The **Cobalt** blue "ecto-skin" coating provides a no glare finish with UV protection, acoustic baffling with a surface that rejects scratches and scuffs. Several noise canceling mic types are available with including non-preamped, preamped, dynamic and the Cobra technology noise canceling. Premium details include full flex boom, dome PTT (or mic mute) switch and volume control and high efficiency samarium cobalt speakers float in a foam frame. Included with each headset are comfort-fit foam ear seals and washable cloth ear covers and mic windscreen.

Over the Head Behind the Head

Wear with helmet, hardhat, logo cap. 24 dB NRR rated. CH-20 mic mute switch CH-21 PTT switch CH-31 listen only (fixed audio cable)

Hard Hat

CH-12 mic mute switch CH-13 PTT switch

24 dB NRR.

Attaches to side slots. Ear cups can

CH-32 listen only (fixed audio cable)

be rotated to side when not in use.

Very comfortable headband. 24 dB NRR rated. CH-10 mic mute switch CH-11 PTT switch CH-30 listen only (fixed audio cable)

Single Ear

Secure fit with comfort. CH-15 mic mute switch CH-16 PTT switch



One ear cup is vented with no speaker to allow listening to ambient noise. CH-40 mic mute switch CH-41 PTT switch

Throat Microphone

Custom built with/or without boom mic and with detachable throat mic. Choice among 3 throat mic types: the Cobalt TM-style of injection molded plastic which covers 2/3rds of neck area centered behind head with dual mic elements; the adjustable elastic cloth strap circling neck with behind neck hook; or spring steel band type covering 2/3rds of neck area. Custom built with choice of detachable Cobalt throat microphone: TM injection molded plastic dual element or TMC adjustable cloth strap secured around neck. Headset styles include: CH-21TM behind head **CH-11TM** overhead support CH-13TM hard hat slot mount

Listen Only

Has coiled 3.5 mm mono audio cable. 24 dB NRR rated CH-30 dual overhead CH-31 dual behind head CH-32 dual hardhat slot

Active Noise Cancellation

Electronic active noise cancellation circuitry installed in any Cobalt dual ear muff headsets increase attenuation of outside sounds by up to 17 dB depending on frequency allowing focus on radio traffic. This Headset, Inc. kit is widely used by pilots and comes with a headband attached 9-volt battery/power switch pouch. When installed, Cobalt does not rate this headset with an NRR rating.

WIRELESS 3M PELTOR

Neckband Hat/Helmet Compatible Powercom





Hard Hat Slot Mount Powercom

Headband Powercom Connection without the restriction of wires. Cobalt offers a unique two-way high noise self-contained hands-free headsets from 3M Peltor.

All headset styles are 24 to 25 dB NRR hearing protectors, comfortably fit and ruggedly constructed with long life batteries and ergonomic controls.

PTT (push-to-transmit) or VOX (voice keyed transmit) functions designed for noisy industrial environments. May also be interfaced with external radio or intercom with optional connector cable.

49 MHz Litecom and 2400 MHz Bluetooth models available.

PC- H, N and **HS PowerCom** Wireless 2way Radio, Headband FRS/GMRS UHF band, 14 channels with privacy sub-codes

PCBR- H, N and **HS PowerCom** Wireless 2way Radio BRS 8 "business radio service" dot frequency channels

PC+- H, N and **HS PowerCom** Plus Wireless 2way Radio Surround sound active listening with hearing protection, FRS/GMRS UHF band

PCG+- H and **N Powercom Plus**, 2way Radio Set, MIL Green Military green, surround sound active listening with 24-25 dB NRR, FRS/GMRS UHF band

PCIS+- H, N and **HS PowerCom Plus** Wireless 2way Radio, IS Intrinsic safety rated, active listening with 24-25 dB NRR, FRS/ GMRS UHF band

PC+2- H, N and **HS Powercom Plus II** UHF Wireless 2way, IS Programmable licensed 430-470 MHz UHF band with PL/DPL, IS rated, active listening

LC- H, N and **HS LiteCom** Wireless 2way Radio 5 channel, 49 MHz band, 400 yard (366 meter) range

BT- H, HV, N and **HS Bluetooth** compliant Headset, 50 feet (15 meter), dongles to several portable, mobile radios and aircraft, also use **Cobalt BLUE** adapter

Model versions:

-H headband overhead, -N neckband behind head, -HS hard hat slot mount, -HF folding headband, high visibility color (flight line)



Vehicle Intercoms

For 2-way Radios

CH16 Headset

Cobalt apparatus intercoms offer effective vehicle communications and hearing protection for fire and

emergency responders. Jack boxes and intercoms are housed in extruded aluminum with anodized magnesium alloy finish and gasketed seals. Cables are designed to withstand extreme temperature, moisture and solar conditions and are terminated with miniature round multi-pin metal locking connectors.



Supports driver and officer positions and up to 2 remote pump panel/outside transmit capable positions. Up to 6 crew intercom/non-transmit positions. Includes front cell phone jack and rear audio IN with auto muting and record OUT. Adjustments for optimizing radio and headset audio.





Pumper configuration using 550, driver, officer, pump panel, and single radio interface.



6 position configuration using 550, driver, officer, 4 crew, pump panel, and single radio interface.



EMS configuration using dual radio 800, driver and officer with 0611 A-B switch jack box, medic with 0640 EMS jackbox with additional hospital radio at medic position with foot switch.

Dual Radio Intercom Same as 550, however, it allows connection for two mobile radios.



Vehicle Intercoms

For 2-way Radios

541

800).

Driver/officer dual radio

A-B switch jack box with

red PTT switch (use with







Headset hanger



Driver/officer transmit position jack box (no switch).



Dual crew position jack box.

Cobalt A/V 5-conductor Nexus plug fits Cobalt A/V intercom jacks

\$2120-05 - 5 ft. S2120-15 - 15 ft.

Firecom 5-conductor Nexus plug fits Firecom intercom jacks PTT positions: S2121-05 - 5 ft. S2121-15 - 15 ft. Crew positions: \$2122-05 - 5 ft. S2122-15 - 15 ft.

3 and 4 non-transmit

David Clark David Clark 3/16" gold plated plug fits old style 1/4" military style plug fits David Clark David Clark intercom intercom jacks

> S2130-05 - 5 ft. S2130-15 - 15 ft.

Sigtronics & Setcom 1/4" gold plated plug fits both Sigtronics and Setcom intercom iacks

S2100-05 - 5 ft. S2100-15 - 15 ft.

jacks

S2110-05 - 5 ft.

S2110-15 - 15 ft.

Driver/officer

transmit position jack box with red PTT switch.



Single crew position 1 non-transmit jack box (-6 thru -8 for position 2 thru 4 crew jack boxes).

David Clark/ Sigtronics 4-conductor Nexus style plug fits David Clark and Sigtronics intercom jacks

S2140-05 - 5 ft. S2140-15 - 15 ft.



Outdoor pump panel transmit position jack box with string action jack cover (no switch).

Transmit function foot switch for connection to

jack box or to intercom.

-leadset Cord

Coiled cords with Nexus 5-contact connector. Cords are polyurethane outer jacket with 100% foil shield for optimal RFI immunity.

> 12005 12015

5 foot coil cord 15 foot coil cord

Intercom

Cables

High quality cable used for connecting intercom to jack boxes.

A DOACS.		
441	5 foot	
442	10 foot	
443	15 foot	
444	20 foot	
445	25 foot	
446	30 foot	
434	Y-splitter cal	ole

33

RADIO VOIP INTEROPERABILITY

VCOM Interoperable Platform

The VCOM Interoperable Platform offers a distributed and easily customizable solution for integrating disparate communications systems in multiple locations into a seamless and rapidly re-configurable solution. The heart of the system is the VCOM Virtual Matrix Intercom that has found wide acceptance in the commercial, industrial, government, and entertainment markets. This unique system offers all of the operational features normally found in hardware central matrix systems in a server/ distributed client format running on standard computer hardware and IP network topology.

The use of standard off the shelf interface hardware in conjunction with **VCOM**'s unique software package allows an unprecedented level of system integration while costs are kept to a minimum and rapid obsolescence is eliminated. System upgrades and changes are a simple software upgrade and system expansion is easily accomplished by the use of additional standard hardware and simple administration software.

The distributed nature of the platform architecture allows individual communications systems to be located anywhere that a network connection can be established and the interconnection of these systems can be controlled from any location or multiple locations. If the master administration site is lost, another one can be established from anywhere in a matter of seconds, even from a wireless laptop!

Initial setup involves programming the Virtual Matrix using the VCOM System Administration application and configuring the necessary audio I/O and GPIO hardware. The audio interface is connected to the radio audio inputand output as determined by the individual radio's configuration. The GPIO interface is connected to the radio according to the individual radio's push to talk configuration.



SYSTEM DIAGRAM



VoIP Touchpanel rackmount control panel

Wireless Adapter for Portable 2-way Radios





In addition to wireless Bluetooth operation, the **CobaltBlue™ Adapter** also has a jack for connecting a quick disconnect wired accessory. Compatible with all CobaltAV QD series accessories including remote PTT, headsets and earphones.

The **CobaltBLUE™** Wireless Adapter allows you to use a compatible wireless headset or other radio accessory with your Motorol two-way radio. The adapter pairs easily with thousands of off the shelf Bluetooth headsets and remembers paired connections even if the radio is turned off. If used with a headset that supports multiple pairings, the **CobaltBLUE™** adapter enables operation of both your cellular phone and two-way radio with the same headset. The accessory jack also allows you to connect anyCobaltAV quick series wired audio accessory, such as a remote Push-to-Talk or lapel microphone, in combination with the wireless headset.

Supports most Bluetooth headsets*

- Push-to-talk switch on CobaltBlue adapter or with optional remote finger switch*
- Includes jack for wired connection of audio accessories including speaker mics, surveillance kits, throat mics and headsets*
- CobaltBlue models available for Motorola XTS-series, HT1000, PR1500, JEDI-series, HT750, HT1250, other Pro-series, XPR Mototrbo series, APX 7000, Kenwood multipin, EF Johnson



BlueMXT

🛞 Bluetooth"



Radio Connectors



-EFI

EF JOHNSON 8100 Series, Avenger-7780, Avenger-8150 Avenger-8160, Avenger-8170



-ISC

ICOM IC-3GT, IC-F11, IC-F11S, IC-F21, IC-F21BR, IC-F21GM, IC-F21S, IC-F3011, IC-F3021, IC-F31, IC-F3G, IC-F3GS, IC-F4011, IC-F4021, IC-F43GS, IC-F43GT, IC-F43TR, IC-F4G, IC-V85 IC-F4GS,IC-F4GT, IC-U82, IC-V8, IC-V82



-JAG

P7100, P7130, P7150, P7170



HYT TC-268/368/270/370/268S/368S **KENWOOD** (may require K0111 adapter) NX-200, NX-300, TH-22AT, TH-235A, TH-28A, TH-42AT, TH-48A, TH-77A, TH-78A, TH-D7A(G), TH-F6, TH-F6A, TH-G71A, TH-K2AT, TK-190, TK-208. TK-2100. TK-2102. TK-2130. TK-2140. TK-2160. TK-2170. TK-2180. TK-220, TK-2200, TK-2200LP, TK-2212L. TK-2302VK, TK-240, TK-240D, TK-248, TK-250, TK-260, TK-260D, TK-260G, TK-270, TK-270G, TK-272G, TK-280, TK-290, TK-308, TK-3100, TK-3101, TK-3102, TK-3130, TK-3131, TK-3140, TK-3148, TK-3160, TK-3170, TK-3173, TK-3180, TK-320, TK-3200, TK-3200LP TK-3212L, TK-3230, TK-3230XLS, TK-3302UK. TK-340. TK-340D. TK-348. TK-350, TK-353, TK-360, TK-360G, TK-370, TK-370G, TK-372G, TK-373, TK-380, TK-385, TK-390, TK-430, TK-431, TK-480, TK-481, TK-5210, TK-5220, TK-5310, TK-5320, TK-5400 **RELM** RPU416, RPU4200, RPU499, RPV4200, RPV516, RPV599X



-HYT HYT TC-518/700/700EX/610/620



-ISC2S

IC-F21BR, IC-F21GM, IC-F24, IC-F3021, IC-F4, IC-F4S, IC-F4TR, IC-H16, IC-H2, IC-F402IT/S. IC-F43GS. IC-F43GT. IC-F43TR, IC-F4G, IC-F4GS, IC-F4GT,



-KMC

KENWOOD NX-200. NX-300. TK-190. TK-2140, TK-2180, TK-280, TK-290, TK-3140, TK-3148, TK-3180, TK-380 TK-5220, TK-5310, TK-5320, TK5400



-LPE M/A COM LPE200, PRISM



-MAS MOTOROLA ASTRO SABER, MX1000, MX2000, MX3000, RPV-7500, SABERI, SABERII, SABERIII



-MBO MOTOROLA APX 7000. XPR6300. XPR6500, XPR6550



-IMC

ICOM IC-F3061T/S. IC-F30G. IC-F30GS. IC-F30GT, IC-F3161, IC-F31GS, IC-F31GT, IC-F4061T/S, IC-F40G, IC-F40GS, IC-F40GT, IC-F4161. ICF-4161. IC-F50. IC-F50V. IC- F60. IC-F60V. IC-F70. IC-F80. IC-M88





COBRA FRS/GMRS. FRS105. FRS110. FRS220. PR1100 ICOM IC-02AT, IC-03AT, IC-04AT, IC-2GAT, IC-2GXAT, IC-4008A, IC-4088A, ICOM F33G, F-51, F-61, IC-3GT, IC-F14, IC-80AD, IC-91A, IC-91AD, IC-F3, IC-F35, IC-F302IT/S, IC-F31, IC-F3GS, IC-F4021, IC-H6, IC-J12, IC-M5, IC-Q7A, IC-T22A, IC-T22E, IC-T42A, IC-T42E, IC-T7H, IC-T90, IC-TH7H, IC-U12, IC-U16, IC-W32A MAXON (may require Maxon ACC-506 or ACC-501 adapter) PL1145, PL2215P, PL2245, PL2245P. PL2415. PL2445. PL5151. PL5161. PL5164, SL100, SL100K, SL25, SL55, SL55Plus, SL70, SP120, SP130, SP140, SP200, SP200K. SP210, SP300, SP310, SP320, SP330, SP340, SP410

MIDLAND JMX Series, JMX-141D, JMX-144D, IMX-146D, IMX-441D, IMX-444D, IMX-446D, RTX Series, RTX-050, RTX-150, RTX-450, SST M/A COM JAGUAR 700P, P5100, P5130, TK-385, TK-390, TK-480, TK-481, TK-5210, D Series, SST-144D, SST-444D, SST-444D, VERTEX FT-10R. FT-270. FT-40R. FT-50R. FT-60R. VX-120. VX-127. VX-170. VX-177. VX-1R, VX-2E, VX-2R, VX-5R, VX-6R, VX-7R



-MEX HYT TC-3000/3600/610P/780/780MPT/PT-790 MOTOROLA EX500, EX600, EX600XLS, GL2000, GP328 PLUS, GP338 PLUS, GP344, GP388, PRO5151 Elite RELM RPU3000A, RPU3600, RPU3600APLUS, RPU6500, RPU7500, RPV3000A, RPV3600, RPV3600APLUS, RPV6500, RPV7500



-MID MIDLAND GXT Series, LXT Series



-MDRC MIDLAND 75-440, 75-785, 80-400, 70-440BP

VERTEX VX-310, VX-500, VX-510, VX-520, VX-520UD (does not work with VX-537)



-MHT **HYT** TC-980

MOTOROLA CBPRO, GP1280. GP140, GP320, GP328, GP329, GP338, GP339, GP340, GP360, GP380, GP640, GP650, GP680, GP960, HT1250, HT1250LS, HT1550, HT1550XLS, HT750. IT1000. MTX8250. MTX8250LS. MTX850, MTX850LS, MTX9250. MTX950, PR860, PRO5150, PRO5350, PRO5450, PRO5550, PRO5750, PRO7150, PRO7350, PRO7450, PRO7550, PRO7750, PRO9150, PTX700, PTX760, PTX780



PL2245P, PL2415, PL2445, PL5151,

PL5161, PL5164, SL100, SP200,

MAXON PL1145, PL2215P, PL2245,



-MXT

EF JOHNSON 51 SLES Series, 5100 Series, 511X, 512X, 514X, 518X, **Ascend ES Series** MOTOROLA GP900, GP9000, HT1000,

MT1500, MT2000, MTS2000, MTX8000, MTX838, MTX900, MTX9000, MTX960, MTXLS, PRI500, X1500, XTS1500, XTS2000, XTS2500, XTS3000, XTS3500, XTS3500. XTS5000



-RIT RITRON | Series, SLX Series, SLX-100, **SLX-400**



-VSS2S

VX-130, VX-131, VX-132, VX-160, VX-180, VX-210, VX-210A, VX-230, VX-231, VX-350, VX-351, VX-354, VX-400, VX-410, VX-420, VX-427





-MOP

Cobra CXR700, CXR800, CXR900, CXR920, CXT400, LI Series, LI3900, LI5600, LI6000, LI6500, LI6700, LI7000, LI7020, MRHH100, MRHH200, PR Series, PR190, PR240, PR245, PR3000, PR3100, PR3175, PR350, PR4000, PR4100, PR4250, -MSC PR4300, PR5000, PR560

HYT TC-320 MOTOROLA EM1000. FR50. FR60.

FV300, FV300R, FV700R, FV750R, MH230R, MJ270R, MR350R, MR355R, SPIRITGT, SPIRITGT Plus, SX600R, SX900R. T270. T280. T289. T5100. T5200, T5300, T5320, T5400, T5410, T5420, T5500, T5600, T5620, T5700, T5710, T5720, T5800, T5820, T5920, T5950, T6200, T6210, T6220, T6250, T6300, T6320, T6400, T6500, T7200, T7400, T8500, T8550, T9500XLR, T9550XLR, T9580R, T9680R, T9750R, TalkAbout



-MTC

EF JOHNSON (requires M6676 adapter) 51 SLES Series, 51 SLES Series, 5100 Series, 5100 Series, 511X, 511X, 512X, 512X, 514X, 514X, 518X, 518X, Ascend ES Series, Ascend ES Series **MOTOROLA** (requires either M6676 or M9717 adapter) CBPRO, GP1280, GP1280, GP140, GP320, GP328, GP329, GP338, GP339, GP340, GP360, GP380, GP640, GP650, GP680, GP900, GP9000, GP960, HT1000, HT1250, HT1250LS, HT1550, HT1550XLS, HT750, JT1000, MT1500, MT2000, MTS2000, MTX8000, MTX8250, MTX8250LS, MTX838, MTX850, MTX850LS, MTX900, MTX9000, MTX9250, MTX950, MTX960, MTXLS, PR860, PRI500, PRO5150, PRO5350, PRO5450, PRO5550, PRO5750, PRO7150, PRO7350, PRO7450, PRO7550, PRO7750, PRO9150, PTX700, PTX760, PTX780, VISAR Series, X1500, XTS1500, XTS2000, XTS2500, XTS3000, XTS3500. XTS5000



-VTC VX-120, VX-127, VX-170, VX-177, **VX-6R, VX-7R**



-MRK M/A COM MRK I, MRK II, MRK III



BLACKBOX all portable models **HYT** TC-1600/500/600 MOTOROLA (may require M9716 or M4455 adapter) AXU4100, AXV5100, BPR40, CBPRO, CLS1110, CLS1410, CLS1413, CLS1450C, CLS1453C, CP100, CP150, CP185, CP200, CP88, CT125, CT150, CT250, CT450, CT450LS, DTR, DTR410, DTR550, DTR650, GP1280, GP140, GP200, GP2000, GP300, GP308, GP320, GP328, GP329, GP338, GP339, GP340, GP350, GP360, GP380, GP640, GP650, GP68, GP680, GP88, GP960, GTI, GTX, HT1250, HT1250LS. HT1550. HT1550XLS. HT750. IT1000. LTS2000. MTX8250. MTX8250LS MTX850, MTX850LS, MTX9250, MTX950, P040, P080, P110, P1225, P1225LS, P200, P2000, PR400, PR860, PRO3150, PRO5150, PRO5350, PRO5450, PRO5550, PRO5750, PRO7150, PRO7350, PRO7450, PRO7550, PRO7750, PRO9150, PTX700, PTX760, PTX780, RDK, RDU, RDU2020, RDU2080D, RDU4100, RDU4160D, RDV, RDV2020, RDV2080D, RDV5100, SP10, SP21, SP50, VL50, XTN XTN446, XTN500, XTN600, XU1100, XU2100, XU2600, XV1100, XV2100, XV2600, EX500. EX600, EX600XLS, GL2000, GP328 PLUS, GP338 PLUS, GP344, GP388, PRO5151 Elite



-VNM

VX-820, VX-821, VX-824, VX-829, VX-871, VX-874, VX-879, VX-920, VX-921, VX-924, VX-929, VX-971, VX-974, VX-979, VX-P820, VX-P920



-VSC VERTEX FT-10R. FT-250. FT-40R. FT-50R. FT-60R, VX-10, VX-110, VX-150, VX-1R, VX-2E, VX-2R, VX-2R, VX-300, VX-400, VX-5R, VXF-1



-VMC VERTEX VX-530, VX-600, VX-800, VX-900

WIRELESS INTERCOM

Wireless Tactical Intercom

Tactical job communication just got more portable and affordable with HME's DX-series spread spectrum digital wireless headset intercoms. Now get crystalclear digital voice "conversation"--all built into super compact design for easy setup and operation.

Since this full duplex "hot mic" technology allows simultaneous talking and listening among users, the term "conversation" is used instead of transmission to distinguish this from two-way radios.

HME

DX100

The **DX100** wireless headset intercom system features a compact economical base station which is weather sealed for dust and moisture. It can be powered with 6 "AA"



batteries or 12 VDC or AC external source. Supports up to 15 users and 4 "talkers" using any combination of **BP200** belt pacs with headset choice, **WH200** wireless "all-inone-headsets" or **WS200** wireless speaker station. Each **BP200** and **WH200** comes with 2 **BAT41** battery packs. System is perfect for applications where no expansion in number of "talkers" or interfacing with other systems is anticipated.

🔴 Fast, easy set-up

- Superior sound quality
- Hands-free operation
- No frequency coordination
- 😑 2.4 GHz license free band
- Secure encrypted conversation
- Triple diversity--space, time and frequency
- Rugged ergonomic design
- Small, lightweight energy efficient portable units
- Up to 20 hour Li-Ion battery use life per charge
- Wide variety of headset choices including "all-in-one" headse
- Expandable and interface-capable base models

Perfect for many critical operations:

- Football coaches
- SWAT/SRT/bomb/hostage negotiation
- Nuclear outage coordination
- Film and video crews
- Industrial production/maintenance
- Wireless fire truck/command vehicles
- Emergency preparedness centers
- Pump/straying operations
- Corrugated machinery line
- Protective clothing communication

- Training
- Plant tours
- Crane rigging
- Houses of worship
 - Flight line 🥚



JX121

The **DX121** base can be plugged directly into the headset jack of any number of popular intercom stations or four wire devices, such as digital matrix intercoms. It is designed to allow one wireless talker per base station using the **BP200** belt pac with headset, **WH200** wireless headset or **WS200** wireless speaker station. The **DX121** base has a built in battery charger which doubles as a battery backup. Assignable relay closure provides advanced functionality with connected radio or wired intercom.

DX500

The **DX200** base is a 19-inch rack mount model with interface and expansion options using any combination of **BP200** belt pacs with headset choice, **WH200** wireless headsets

or **WS200** wireless speaker stations. Wired intercom ports support two-wire, four-wire or both simultaneously and is compatible with Telex RTS, ClearCom and Production Intercom two-wire intercoms. Interface to telephone with additional components Connect multiple base stations to increase number of talkers or coverage areas.



The **DX300** is flexible, expandable and economical, allowing either single or dual channel use. In twochannel mode, the user selects which channel he or she talks on. Developed as a football coach spotting system, a coach package can be set up for offense field coach and press box spotter, defense coach with spotter on separate channel, plus head coach who can talk to either or all at same time.

There are two headset ports on the compact table top base station which has "AA" battery backup compartment. DX300 system allows 3 wireless talkers per base in dual channel mode (or 4 talkers in single channel mode) with up to 15 users. To increase number of talkers, additional DX300 base stations may be added with simple network cable connection daisy-chaining base stations. BP300 belt pacs with choice of headset or WH300 wireless 'all-in-one" headsets may be used. Each **BP300** and WH300 come with 1 BAT41 battery pack.

The **DX300ES** is our tactical wireless headset intercom since it adds contact closure relays allowing connection of a portable or mobile two-way radio. This is the only difference from the standard **DX300**. The function allows a team locally to converse privately and monitor two-way radio dispatch traffic and the ability to use the "all" button on the belt pac or headset to "push-to-transmit" message over the two way radio network. If multiple base stations are connected, users on one base or multiple bases can use the PTT function.

Custom carry case or back pack allow for DX300ES base station(s) to be packaged with two-way radio and even external battery.





System Specifications RF frequency range: All band 2400-2383.5 MHz, low band 2401.9-2439.9 MHz. high band 2443.4-2443.4-2481.4 MHz Frequency response: 200 Hz-3.5 kHz Distortion: <2% -90 dBm with 10-3 BER RF sensitivity: Temperature range: -4 to 131°F (-20 to 55° C) Typ. Transmit/Receive type: Frequency-hopping spread spectrum (FHSS) Gaussian filtered FSK, TDMA Modulation type: 64-bit Encryption: **RoHS** compliant

Subscriber Specifications

· · · ·	
'ransmit power:	100 mW burst
intenna:	Internal
lic input:	Electret (except WH200/300)
leadset connector:	Mini-DIN (except WH200/300
leadset output:	160 mW into 32 ohms
ower requirements:	BAT41 battery, except WS200
	speaker station 100-240 VAC,
	50-60 Mz or 12-14 VDC or 6
	AA batteries
lattery life:	Hands-free Up to 14 hrs, PTT
	up to 20 hrs. with BAT41 (not
	used on WS200)
CC acceptance:	Part 15 (no license required)

Base Station Specifications

Transmit power: 100 mW burst TX & RX antenna: 1/2-wave, dual-diversity dipole Mic input: Electret (DX200, DX300ES) Mini-DIN (DX200, DX300/ES) Headset connector Power requirements: 100-240 VAC, 50-60 Mz or 12-14 VDC on all models, plus 6 AA (DX100 and DX300/ES), BAT41 (DX121) FCC acceptance: Part 15 (no license required)







Headset Adapter

Custom Length

Extension Cable

options available

Beltpak Pouch

and BP300 Beltpak)

High gain external antenna

Base Station Monitor

Rechargeable Lithium-ion

Speaker (DX200)

BAT41

battery pack



KLSA













(For DX300/ES)

Antenna Splitter



(For DX300/ES) 7 foot included with each base

